PART 4

POSITION AND DESCRIPTION OF SENSORS AND PCBs

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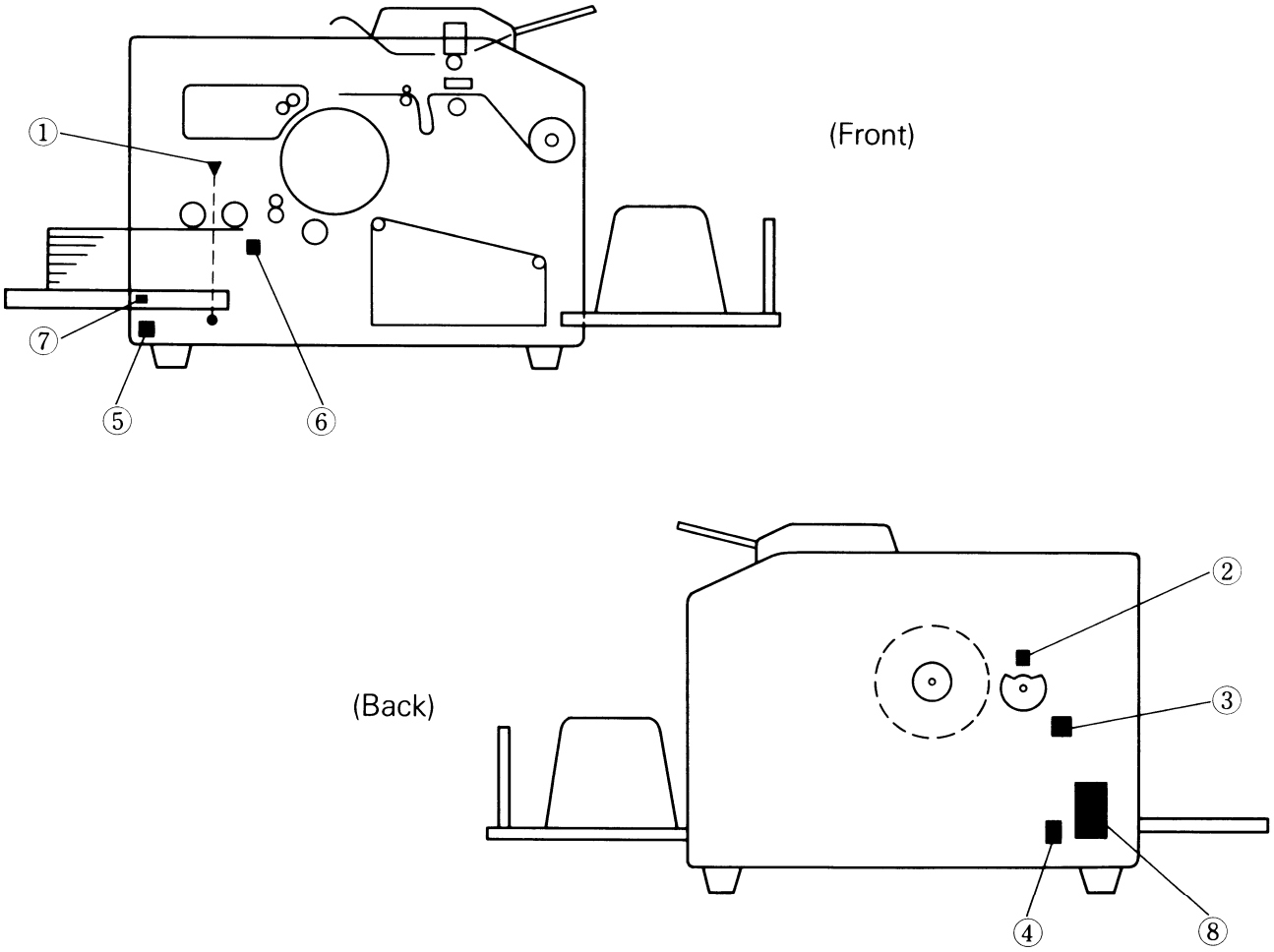
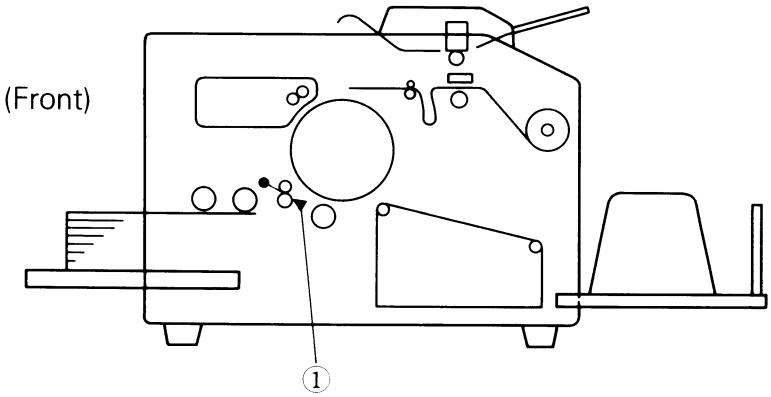
THE SENSORS AND MOTORS

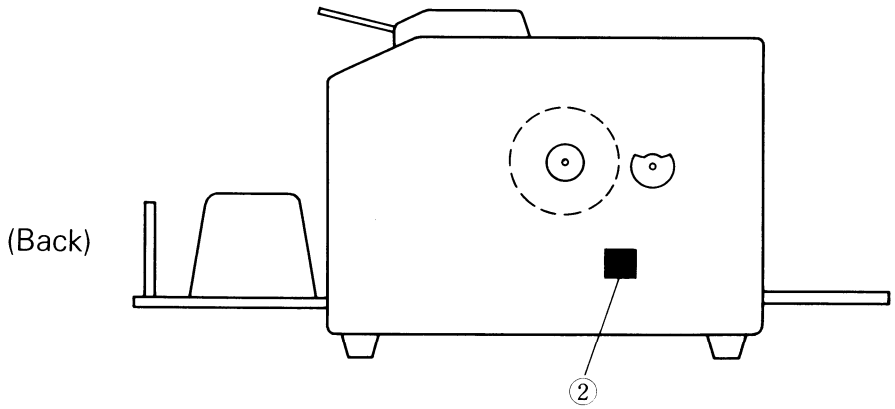
1. FIRST PAPER FEED AREA



1. **Paper Detection Sensor** (Photo sensor)
   (Detects paper on the Paper-Feeding Table)
2. **Paper Feed Clutch Sensor** (Photo sensor)
   (Controls the operating time of the Paper Feed Clutch)
3. **Upper Limit Sensor** (Photo sensor)
   (Checks and stops the elevation of the Paper-Feeding Table)
4. **Lower Limit Switch** (Micro switch)
   (Checks and stops the lowering of the Paper-Feeding Table)
5. **Safety Switch** (Micro switch)
   (Controls the emergency stop of the Elevator Motor)
6. **Stack Paper Feeding Switch** (Micro switch)
   (Detects the stack paper feeding and prevents the operation of the Paper Feed Clutch)
7. **Paper-Feeding Table Sensor** (Magnetic Sensor)
   (Checks the correct setting of the Paper Feeding Table)
8. **Elevator Motor**

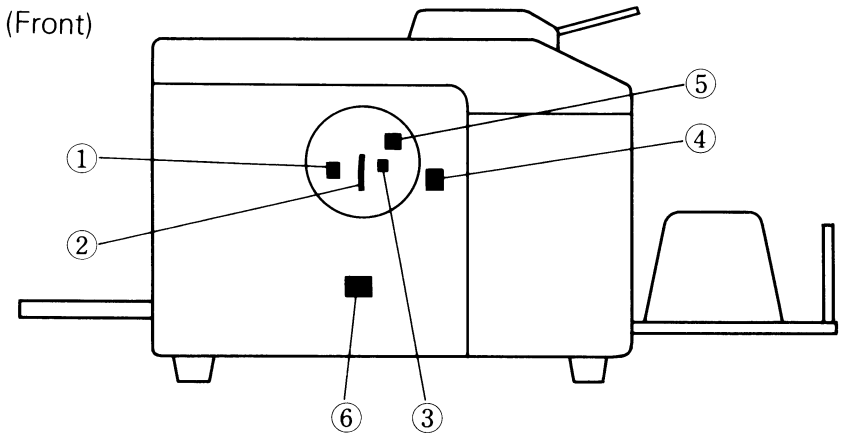
2. SECOND PAPER FEED AREA





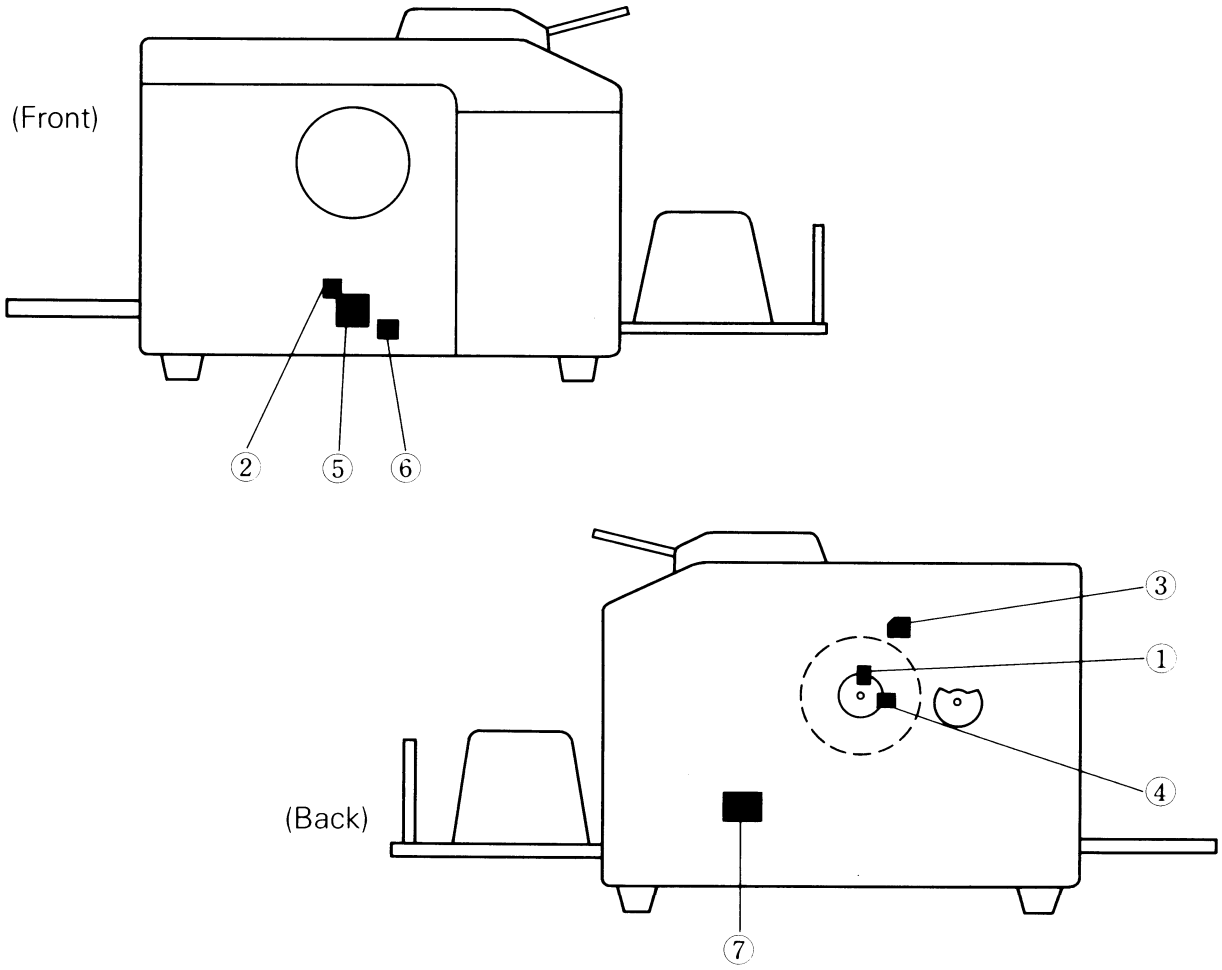
1. **Paper Sensor** (Photo sensor)
   (Check paper is in the second paper feed area)
2. **Vertical Positioning Motor**
   (Controls the printing position vertically)

3. PRINT AREA



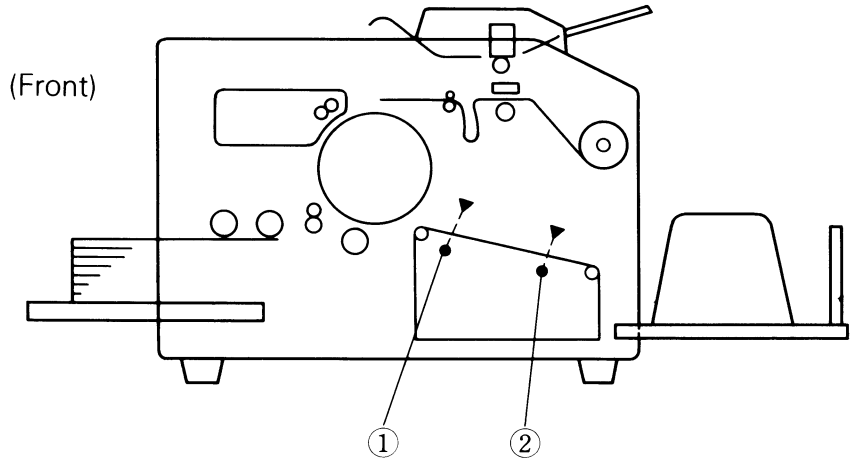
1. **Overflow Sensor** (Photo sensor)
   (Detects the overflow of ink)
2. **Ink Sensor** (Electrostatic Content)
   (Checks the amount of ink in the Squeegee Unit)
3. **Ink Bottle Switch** (Micro switch)
   (Checks the ink bottle is set correctly)
4. **Drum Set Switch** (Micro switch)
   (Checks the Drum is set correctly)
5. **Inking Motor**
   (Sucks ink from the ink bottle and supplys ink into the Squeegee Unit)
6. **Lock Solenoid**
   (Makes it possible to pull out the Drum)

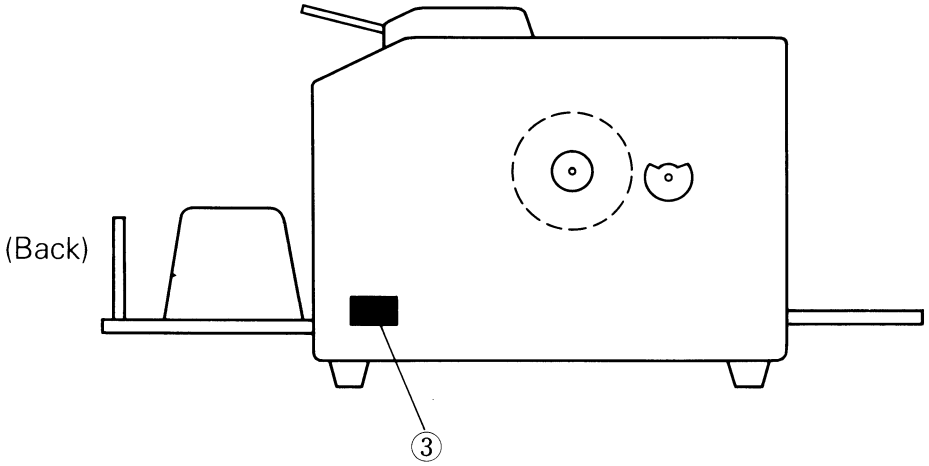
4. DRIVE MECHANISM AREA



1. **I Detection Sensor** (Photo Sensor)
   (Decides on the check positions of Master presence, cutting action, and cutting error)
2. **Encoder Sensor** (Photo Sensor)
   (Controls the rotation of the Main Motor)
3. **Magnet A Detection Sensor** (Magnetic sensor)
   (Detects the home position of the Drum)
4. **Pressure Detection Sensor** (Photo sensor)
   (Decides on the time of turning off the Pressure Solenoid and the check position of Paper Jam Right)
5. **Main Motor**
   (Motive force of the Drive Mechanism)
6. **Front Cover Switch** (Micro switch)
   (Checks the correct setting of the Front Cover)
7. **Pressure Solenoid**
   (For Pressure ON/OFF)

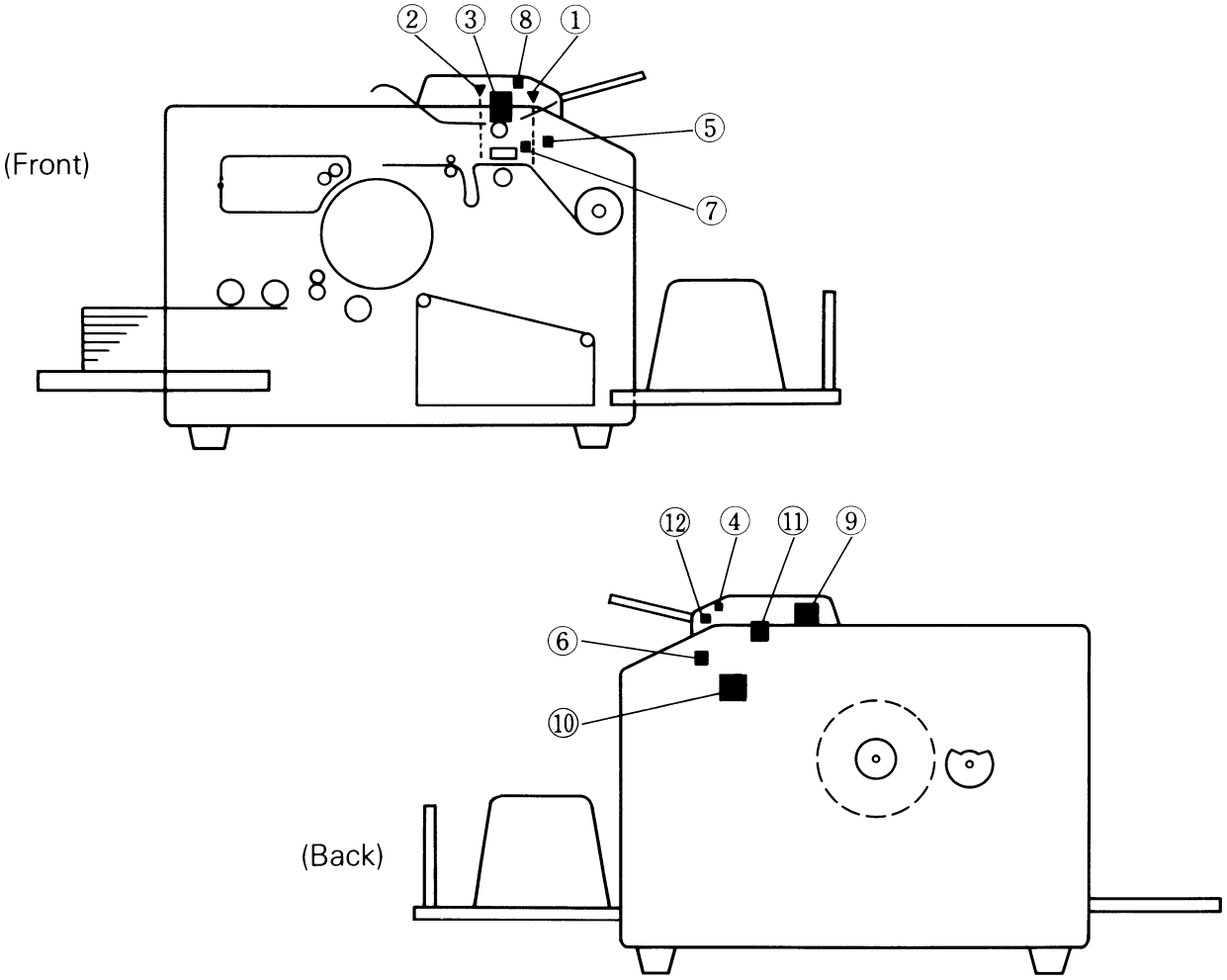
5. PAPER RECEIVING AREA





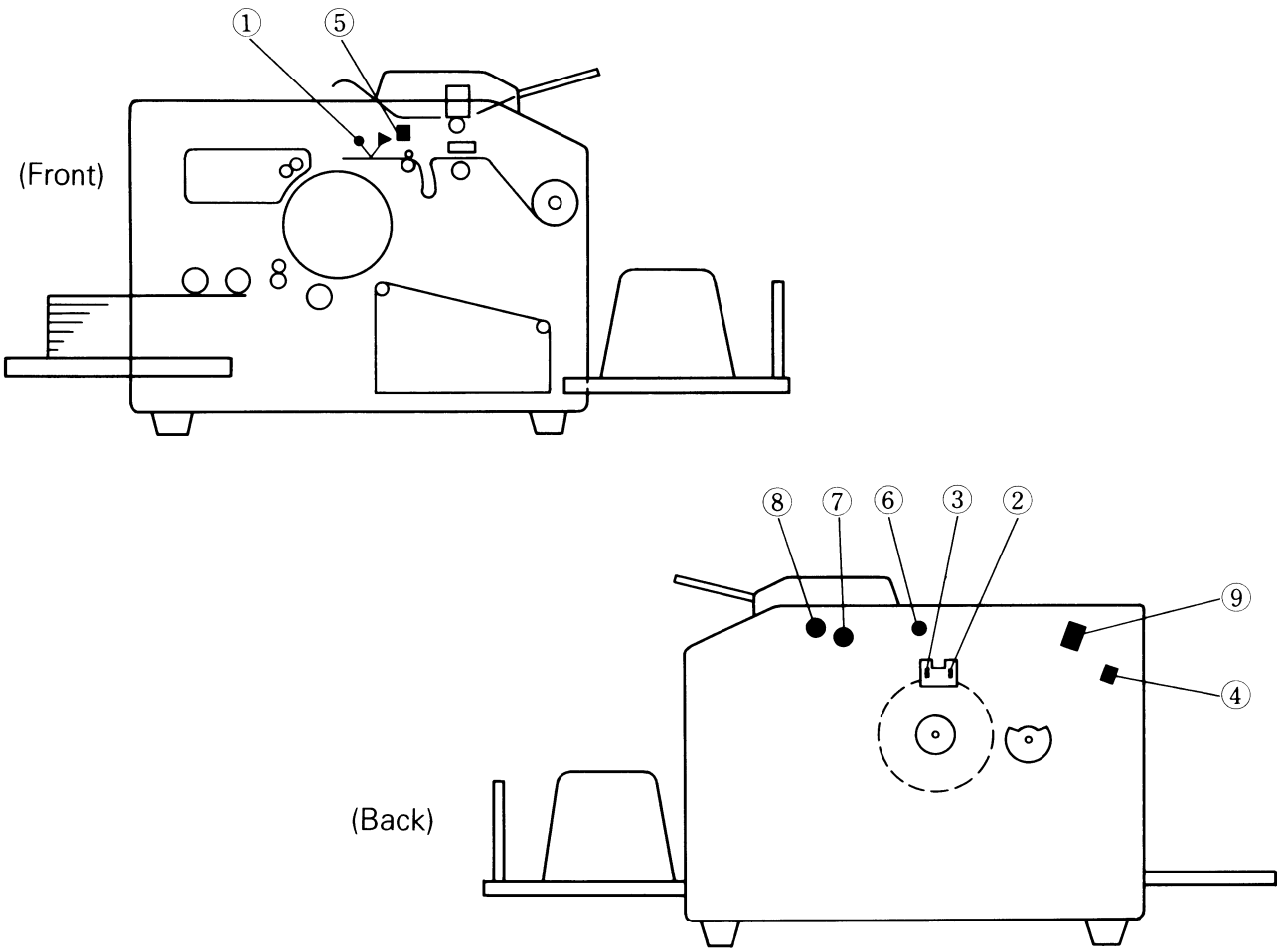
1. **Paper Receiving Sensor 1** (Photo sensor)
   (Checks the delivery of printed paper through the Suction Unit)
2. **Paper Receiving Sensor 2** (Photo sensor)
   (Checks the delivery of printed paper to the Paper Receiving Table)
3. **Suction Motor**
   (Controls the rotation of the Suction Fan)

6. MASTER-MAKING AREA



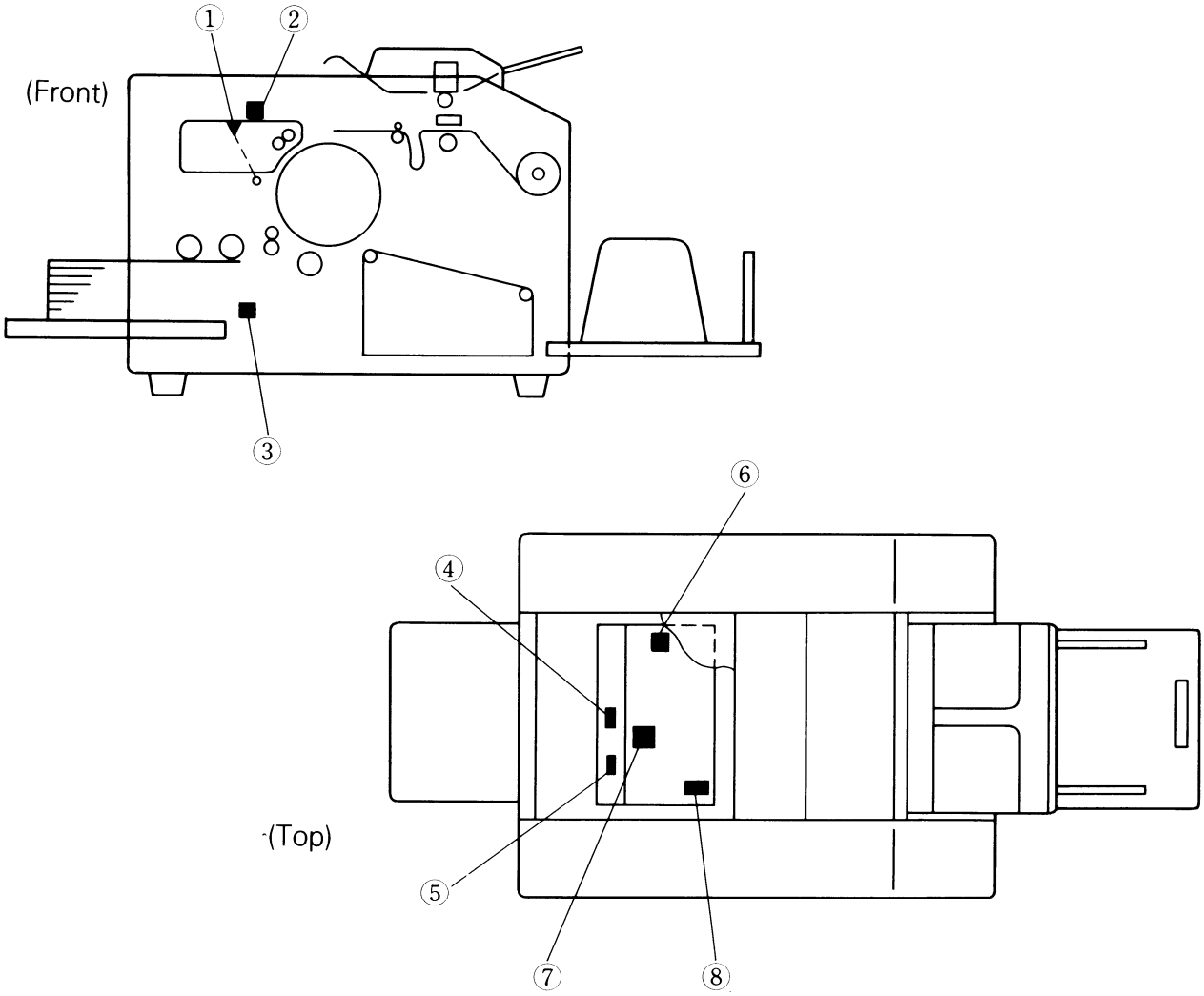
1. **Original IN Sensor** (Photo sensor)
   (Checks that an original comes into the Image Scanner section)
2. **Original OUT Sensor** (Photo sensor)
   (Checks that an original passed through the Image Scanner section)
3. **Image Scanner** (Photo sensor)
   (Reads images on an original)
4. **Original Detection Sensor** (Photo sensor)
   (Checks that an original is present)
5. **Master Detection Sensor** (Photo Sensor)
   (Checks that a Master Roll is set correctly)
6. **Master End Sensor** (Photo sensor)
   (Detects the finish of a Master Roll)
7. **Master-making Unit Switch** (Micro switch)
   (Checks that the Master-making Unit is closed)
8. **Cover Safety Switch** (Micro switch)
   (Cuts the power when the upper cover is open)
9. **Read Pulse Motor**
   (Transports an original)
10. **Write Pulse Motor**
    (Transports the Master during the Master making process)
11. **Master-making Solenoid**
    (Set the Thermal Head lower)
12. **Original Feed Solenoid**
    (Sets the Guide A in contact with the Original Feed Roller)

7. CARRIER AND CLAMP AREA



1. **Master Sensor** (Photo sensor)
   (Checks the Master on the Drum)
2. **0° Angular Sensor** (Magnetic sensor)
   (Detects the Clamp Plate is closed)
3. **180° Angular Sensor** (Magnetic sensor)
   (Detects the Clamp Plate is open)
4. **Clamp Safety Sensor** (Magnetic sensor)
   (Checks the lowering and returning of the Clamp Motor)
5. **Cutter Position Switches** (Micro switch)
   (Check the position of the Cutter Disc)
6. **Clamp Motor**
   (Opens and closes the Clamp Plate)
7. **Cutter Motor**
   (Drive the Cutter Disc)
8. **Loading Motor**
   (Feeds the Master to the Clamp Plate)
9. **Clamp Solenoid**
   (Lowers the Clamp Motor)

8. MASTER REMOVAL AREA



1. **Master Removal Sensor** (Photo sensor)
   (Checks whether there is a Master in the Master Removal Unit)
2. **Master Over Switch** (Micro switch)
   (Checks whether the Master Disposal box is full)
3. **Master Box Switch** (Micro switch)
   (Checks the correct setting of the Master Disposal Box)
4. **Master Removal Cover Switch** (Micro switch)
   (Checks the correct setting of the Master Removal Cover)
5. **Self Retention Switch** (Micro switch)
   (Checks the position of the D Roller)
6. **Master Removal Vertical Transport Motor**
   (Transports the used Master from the Drum into the Master Removal Unit)
7. **Master Removal Lateral Transport Motor**
   (Transports the used Master from the Master Removal Unit to the Master Disposal Box)
8. **Master Removal Solenoid**
   (Controls the Master Removal Hook)